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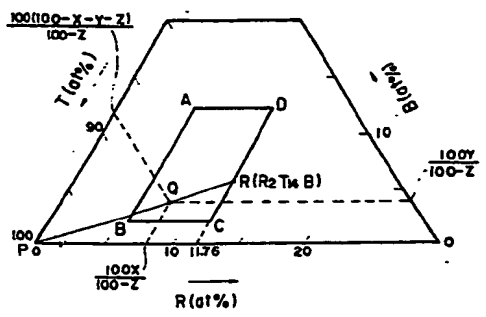
(54) Permanent magnets.

(57) A permanent magnet having high coercivity and energy product contains rare earth elements, boron, at least one element of Ti, V, Cr, Zr, Nb, Mo, Hf, Ta and W, and a balance of Fe or Fe and Co, and consists of a primary phase of substantially tetragonal grain structure, or a mixture of such a primary phase and an amorphous or crystalline rare earth element-poor auxiliary phase wherein the volume ratio of auxiliary phase to primary phase is smaller than a specific value.

FIG.1



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